

## WYOMING LEGISLATIVE SERVICE OFFICE

# Memorandum

**DATE** May 16, 2019

To Joint Minerals, Business and Economic Development Interim

Committee

**FROM** Brian Fuller, Staff Attorney

**SUBJECT** Topic Summary: Oil and Gas Law in Wyoming

This summary provides background information on oil-and-gas law in Wyoming, an interim topic that Management Council has approved for this Committee to study during the 2019 interim. This summary first provides a general overview of Wyoming's oil and gas statutes before focusing on specific identified issues: applications for permits to drill, drilling-and-spacing units, forced pooling, bonding, and produced water.

## **Approved Interim Topic**

Priority No. 1: Oil and Gas Issues

The Committee will comprehensively study and consider Wyoming's statutes and regulations pertaining to oil and gas, including bonding, the acquisition of oil-and-gas leases, the permitting process, split-estate issues, and drilling practices. The Committee will also consider standards and the regulation of soil health and clean water, including the application of produced water. Management Council has authorized two (2) additional legislators to attend a meeting on this topic.

#### Oil and Gas Law: Overview

Most of Wyoming's statutes pertaining to oil and gas are in Title 30, Chapter 5. There are statutory provisions that address, among other things, authority for the governor to join an interstate conservation compact, payments for interests in production, split estates and entry to conduct operations, and geologic sequestration.

<sup>&</sup>lt;sup>1</sup> <u>See</u> W.S. 30-5-201 through 30-5-204.

The Oil and Gas Conservation Commission is responsible for the oversight of the oil-and-gas industry and operations in Wyoming.<sup>5</sup> The governor, the director of the office of state lands and investments, the state geologist, and two members of the public are on the Commission, with the state oil-and-gas supervisor serving ex officio.<sup>6</sup> Among other things, the Commission is authorized to:

- Impose fees for applications for hearings, approvals, certain tests, and permits;<sup>7</sup>
- Regulate the drilling, plugging, and operation of wells and require bonds for ensuring the plugging of dry and abandoned wells;<sup>8</sup>
- Regulate the spacing of wells;<sup>9</sup>
- Regulate the disposal of salt and nonpotable water and other fluids and wastes uniquely associated with exploration and production operations;<sup>10</sup>
- Establish drilling units of specified and approximately uniform size that afford each owner an opportunity to drill for and produce oil as a prudent operator;<sup>11</sup>
- Issue orders for unitization of pore space and oil-and-gas interests with consenting coal interests and approve proposed plans for unitization of one or more pools. 12

The Commission is authorized by statute to promulgate all rules necessary to effectuate the purposes and intent of the oil-and-gas statutes, <sup>13</sup> and the Commission is authorized to hold hearings and enter orders under the provisions of the Wyoming Administrative Procedure Act and the rules of the Commission. <sup>14</sup>

## **Applications for Permits to Drill**

There are requirements an oil-and-gas operator must complete before commencing drilling operations. If the operator owns both the mineral and surface estates, he must

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<sup>2</sup> See W.S. 30-5-301 through 30-5-305.
<sup>3</sup> See W.S. 30-5-401 through 30-5-410.
<sup>4</sup> See W.S. 30-5-501 and 30-5-502.
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<sup>&</sup>lt;sup>5</sup> See W.S. 30-5-104(a).

<sup>&</sup>lt;sup>6</sup> W.S. 30-5-103(a) and (d).

<sup>&</sup>lt;sup>7</sup> W.S. 30-5-104(a)(i) through (iv).

<sup>&</sup>lt;sup>8</sup> W.S. 30-5-104(d)(i).

<sup>&</sup>lt;sup>9</sup> W.S. 30-5-104(d)(ii)(C).

<sup>&</sup>lt;sup>10</sup> W.S. 30-5-104(d)(ii)(D).

<sup>&</sup>lt;sup>11</sup> W.S. 30-5-104(d)(iv); W.S. 30-5-109(a).

<sup>&</sup>lt;sup>12</sup> W.S. 30-5-104(d)(viii) and (ix); W.S. 30-5-110.

<sup>&</sup>lt;sup>13</sup> W.S. 30-5-104(c).

<sup>&</sup>lt;sup>14</sup> W.S. 30-5-104(b); W.S. 30-5-105.

submit a notice to the Commission and pay a \$500 fee.<sup>15</sup> After receiving notification and the fee payment, the Commission must promptly issue a permit to drill unless drilling the well would be contrary to statute, rule, or a commission order.<sup>16</sup>

If the operator does not own the surface estate, then the operator must complete an application for a permit to drill (APD) and submit it to the Commission.<sup>17</sup> The application must include certification that the operator gave notice to the surface owner, the parties attempted good-faith negotiations to reach a surface-use agreement, and the operator has met the conditions of W.S. 30-5-402(c) (securing an agreement, waiver, or consent from the landowner or executing a surety bond to secure for damages).<sup>18</sup> The Commission also requires, among other things, an accurate plat showing the location of the proposed well and additional technical information related to the well, drilling process, and land geology and hydrology.<sup>19</sup>

Under current Commission regulation and if the operator does not commence drilling, the permit to drill expires two years after the permit is issued.<sup>20</sup> The operator can submit another application and \$500 fee two months before the permit expires in order to extend the permit to drill for another two years.<sup>21</sup>

The number of APDs that the Commission has received in the last few years has increased considerably. In June 2016, the Commission received 498 APDs.<sup>22</sup> In 2017, the Commission averaged 1,050 APDs received per month.<sup>23</sup> In November 2018, the Commission received 2,950 APDs.<sup>24</sup> In February 2019, the Commission received 3,177 APDs.<sup>25</sup> In order to more efficiently address the increased APDs received, the Commission in March 2018 began processing APDs based on an operator's submitted rig schedule every six months.<sup>26</sup>

<sup>&</sup>lt;sup>15</sup> W.S. 30-5-115; WOGCC Rules, Ch. 3, § 8(a).

<sup>&</sup>lt;sup>16</sup> W.S. 30-5-115.

<sup>&</sup>lt;sup>17</sup> See W.S. 30-5-403(a).

<sup>&</sup>lt;sup>18</sup> Id.; WOGCC Rules, Ch. 3, § 8(d).

<sup>&</sup>lt;sup>19</sup> WOGCC Rules, Ch. 3, § 8(c).

<sup>&</sup>lt;sup>20</sup> WOGCC Rules, Ch. 3, § 8(h).

<sup>&</sup>lt;sup>21</sup> Id.

<sup>&</sup>lt;sup>22</sup> WOGCC Supervisor's Report, July 2016.

<sup>&</sup>lt;sup>23</sup> WOGCC Application for Permit to Drill Processing Policy, March 13, 2018 (<u>available at https://bit.ly/2YMQowd</u>).

<sup>&</sup>lt;sup>24</sup> WOGCC Supervisor's Report, December 2018.

<sup>&</sup>lt;sup>25</sup> WOGCC Supervisor's Report, March 2019.

<sup>&</sup>lt;sup>26</sup> WOGCC Policy, March 13, 2018.

## **Drilling and Spacing Units**

The Commission has authority to regulate, for conservation purposes, the spacing of wells.<sup>27</sup> In addition, the Commission may, in order to protect correlative rights, establish drilling units that afford each owner an opportunity to drill for and produce as a prudent operator his just and equitable share of the oil and gas in the pool, so long as it is reasonably practicable to do so without waste.<sup>28</sup>

The Commission has promulgated rules for the location of drilling and spacing units and wells within units. For vertical wells, in the absence of a special Commission order, wells are to be located in the center of a 40-acre governmental quarter-quarter section, with no well being drilled less than 920 feet from any other well drilling to or capable of producing oil or gas from the same pool.<sup>29</sup> Special spacing rules exist for deep and coalbed-methane vertical wells in the Powder River Basin.<sup>30</sup>

For horizontal wells, in the absence of a special Commission order, wells must have a permanent 640-acre spacing unit.<sup>31</sup> The surface location may be anywhere on the leased premises or on lands adjacent to the spacing unit so long as the surface location complies with surface-setback rules.<sup>32</sup> Commission rules set further limits and requirements for horizontal wells, including:

- No portion of the completed interval of a horizontal lateral can be closer than 660 feet to a drilling or spacing unit boundary;
- Except for wells in federal exploratory units, secondary units or in API units, the completed interval can be no closer than 1,320 feet to any horizontal or vertical well completed in the same formation;
- The operator must provide notice of intent to drill horizontal wells to the Commission that includes, among other things, a diagram showing the wellbore path;
- The operator must provide notice by certified mail of the APD for a horizontal well to all owners within the boundaries of the designated spacing unit.<sup>33</sup>

<sup>33</sup> WOGCC Rules, Ch. 3, § 2(b)(ii) through (v); § 8(f).

<sup>&</sup>lt;sup>27</sup> W.S. 30-5-104(d)(ii)(C).

<sup>&</sup>lt;sup>28</sup> W.S. 30-5-104(d)(iv).

<sup>&</sup>lt;sup>29</sup> WOGCC Rules, Ch. 3, § 2(a).

<sup>&</sup>lt;sup>30</sup> WOGCC Rules, Ch. 3, § 2(a)(iv) and (v).

<sup>&</sup>lt;sup>31</sup> WOGCC Rules, Ch. 3, § 2(b)(intro) and (i).

<sup>&</sup>lt;sup>32</sup> Id.

The rules regarding the location of wells and drilling and spacing units do not apply to federal exploratory and secondary units so long as vertical wells are not closer than 460 feet and horizontal wells are not closer than 660 feet from the exterior boundaries of that unit.<sup>34</sup> An operator may also seek an exception to the spacing rules from the Supervisor; if the Supervisor refuses to approve an exception, the Commission may grant the exception after notice and a hearing.<sup>35</sup>

#### **Forced Pooling**

Wyoming statute does not define "pooling," but "pool" is defined as "an underground reservoir containing a common accumulation of oil or gas, or both."<sup>36</sup> Generally, "pooling" is the joining or combination of separately owned parcels (or portions of parcels) to create sufficient acreage for a drilling and spacing unit and a permit to drill. Current statute authorizes the Commission to issue orders related to pools of oil and gas for various purposes, including:

- Limiting the total amount of oil and gas that can be produced in any pool to a lesser amount to prevent or minimize reasonably avoidable drainage and waste;<sup>37</sup>
- Establishing drilling units that afford each owner an opportunity to drill for and produce his just and equitable share of the oil or gas or both in the pool;<sup>38</sup>
- Pooling parcels of land of different surface owners together in order to meet a minimum bonding requirement for regulating seismic shot holes and geophysical operations when no single parcel exceeds 40 acres;<sup>39</sup>
- Providing for the unit operation of a pool or pools that embrace a unit area established by an earlier Commission order or by a previous agreement involving waterflooding or other recovery operations.<sup>40</sup>

The Commission also has the authority to pool all interests from two or more separately owned tracts to form a drilling unit. When the landowners do not agree to join their parcels to a drilling unit, "the Commission, upon the application of any interested person, may enter an order pooling all interests in the drilling unit for the development and operation thereof."<sup>41</sup>

<sup>&</sup>lt;sup>34</sup> WOGCC Rules, Ch. 3, § 2(d).

<sup>&</sup>lt;sup>35</sup> WOGCC Rules, Ch. 3, § 3(a).

<sup>&</sup>lt;sup>36</sup> W.S. 30-5-101(a)(iii).

<sup>&</sup>lt;sup>37</sup> W.S. 30-5-102(b).

<sup>&</sup>lt;sup>38</sup> W.S. 30-5-104(d)(iv).

<sup>&</sup>lt;sup>39</sup> W.S. 30-5-104(d)(v)(A).

<sup>&</sup>lt;sup>40</sup> W.S. 30-5-110(j).

<sup>&</sup>lt;sup>41</sup> W.S. 30-5-109(f).

The first owner to file an APD gains a significant advantage within a drilling-and-spacing unit, as the owner who first completes the APD process will be granted the opportunity to drill and operate within a drilling-and-spacing unit. Subsequent owners who attempt to file an APD while the original owner's two-year APD is active are unable to drill within the unit.<sup>42</sup> In its pooling order, the Commission may provide that the owner drilling or paying for the drilling of a well for the benefit of all owners is entitled to all production from the well, after payment of royalty and obligations, until the owner drilling the well has been paid the amount due under the terms of the pooling order.<sup>43</sup>

Once an owner who holds the APD within a unit decides to drill, the owner drilling the well must offer the other owners within the unit the opportunity to participate in the pooling order. A landowner who elects to participate will pay the driller his share of the costs of drilling and production, based on the Commission's determination in the pooling order. Participating owners then are entitled to receive, "subject to royalty or similar obligations, the share of the production of the well" applicable to that owner's tract. If a landowner refuses to consent and participate in the pooling order, that landowner is not required to pay any of the costs of drilling and production. But that nonconsenting owner is entitled to his share of the production only after the driller and operator have recovered:

- 100% of the nonconsenting owner's share of the cost of any newly acquired surface equipment beyond the wellhead connections;<sup>46</sup>
- 100% of the nonconsenting owner's share of the cost of operation of the well, commencing with first production and continuing until the nonconsenting owner's relinquished interest reverts;<sup>47</sup>
- Up to 300% of the portion of the costs and expenses of drilling, reworking, deepening or plugging back, testing, and completing the well;<sup>48</sup>
- Up to 200% of that portion of the cost of newly acquired equipment in the well, including the wellhead connections, that would have been chargeable to the nonconsenting owner if he had consented to the pooling order.<sup>49</sup>

<sup>45</sup> See id.

<sup>&</sup>lt;sup>42</sup> For a short synopsis of this issue, <u>see Why So Many Permits</u>, Wyoming Oil & Gas Conservation Comm'n, <u>available at http://tiny.cc/537s4y</u>. <u>See also W.S. 30-5-109(f)</u>.

<sup>&</sup>lt;sup>43</sup> <u>See</u> W.S. 30-5-109(g).

<sup>&</sup>lt;sup>44</sup> Id.

<sup>&</sup>lt;sup>46</sup> W.S. 30-5-109(g)(i).

<sup>&</sup>lt;sup>47</sup> Id.

<sup>&</sup>lt;sup>48</sup> W.S. 30-5-109(g)(ii).

<sup>&</sup>lt;sup>49</sup> Id.

This approach is known as the "risk-penalty" approach: the nonconsenting owner is subject to a "risk penalty" to reward the owner with the APD for bearing the risks of drilling a potentially dry well. Some states use a "costs-only" approach. The nonconsenting owner is held liable for production costs only if the drilling and extraction is successful, but the nonconsenting owner does not bear any of the risks of drilling.<sup>50</sup>

A handful of states utilize an "options" approach, where statute gives a nonconsenting owner different options to select after receiving a forced-pooling order. For example, in West Virginia, a nonconsenting landowner can either (1) sell his mineral interests to a participating owner or (2) elect to participate in the pooling order on a limited basis, without sharing full costs.<sup>51</sup> South Dakota and Idaho have adopted a similar approach.<sup>52</sup>

## **Bonding**

The Commission is authorized to require the "furnishing of a surety bond or other guaranty, conditioned for or securing the performance of the duty to plug each dray or abandoned well or the repair of wells causing waste and compliance with the rules and orders of the commission."<sup>53</sup>

The Commission has set bond requirements depending on the type of well and operation. Individual well bonds are set at \$10 per foot of the well bore and are adjusted every three years based on the Wyoming consumer price index or actual plugging costs.<sup>54</sup> Alternatively, an operator can submit a blanket bond of \$100,000 to cover all wells, regardless of depth or length.<sup>55</sup> The Commission has also set bond requirements for idle wells and pits constructed to receive water or other wastes produced in association with hydrocarbons.<sup>56</sup> The Commission accepts several types of financial assurance, subject in

<sup>&</sup>lt;sup>50</sup> <u>See</u> Alaska Stat. § 31.05.100 (nonconsenting landowners may be charged for the costs of production attributable to their proportionate share only if drilling is successful). Alaska is unique in that a landowner can drill on his individual parcel if a voluntary-pooling agreement cannot be reached and the owner with the drilling permit does not meet specified conditions for a forced-pooling order. <u>See id.</u> But the nonconsenting landowner can extract only a proportionate amount of oil or gas based on the proportion of their parcel to the drilling unit. <u>See id.</u>

<sup>&</sup>lt;sup>51</sup> <u>See</u> W. Va. Code § 22C-9-7.

<sup>&</sup>lt;sup>52</sup> See Idaho Code § 47-322; S.D. Codified Laws § 45-9-33.

<sup>&</sup>lt;sup>53</sup> W.S. 30-5-104(d)(i)(D).

<sup>&</sup>lt;sup>54</sup> WOGCC Rules, Ch. 3, § 4(b)(i)(A).

<sup>&</sup>lt;sup>55</sup> WOGCC Rules, Ch. 3, § 4(b)(i)(B).

<sup>&</sup>lt;sup>56</sup> WOGCC Rules, Ch. 3, § 4

some cases to specific conditions before acceptance. These include surety bonds, cashier's checks, certificates of deposit, and letters of credit.<sup>57</sup>

For split estates, operators who seek entry onto land for oil-and-gas operations must attempt good faith negotiations and seek to reach an agreement, waiver, or receipt of consent from the surface owner. If those efforts are unsuccessful, the operator can execute a "good and sufficient surety bond . . . to the commission for the use and benefit of the surface owner to secure payment of damages." For split estates, the surety bond can be not less than \$10,000 per well site; if the operations involve seismic activities, the surety bond must be not less than \$5,000 for the first 1,000 acres plus an additional \$1,000 per 1,000 acres. The bond posted can be a blanket bond, but no bond or guaranty required "is intended to establish any amount for reasonable and foreseeable damages."

Within seven days after the Commission has received a surety bond from an operator for entry for operations, the Commission must notify the surface owner of receipt of the bond.<sup>62</sup> The surface owner then has 30 days to object in writing to the amount or the type of the surety bond; if the owner objects, the Commission must review the bond and the accompanying documents that the operator submitted and must decide whether the amount and type of the bond are acceptable.<sup>63</sup> The Commission can require additional surety or guaranty from the operator.<sup>64</sup> Any aggrieved party can appeal the Commission's decision to the district court.<sup>65</sup>

After the Commission has received the bond, the operator can enter the land to conduct oil and gas operations.<sup>66</sup> The bond is released after (1) compensation for damages is issued; (2) the parties agree to release the bond; (3) there is final judicial resolution for damages, if an action is filed; or (4) the operator certifies that the surface owner failed to give proper notice or failed to sue for damages within the required time period.<sup>67</sup> Before releasing the bond, the Commission is required to make a reasonable effort to contact the surface owner to confirm that the surface owner has received compensation, entered into

<sup>&</sup>lt;sup>57</sup> WOGCC Rules, Ch. 3, § 4(c).

<sup>&</sup>lt;sup>58</sup> W.S. 30-5-402(c).

<sup>&</sup>lt;sup>59</sup> W.S. 30-5-402(c)(iv).

<sup>&</sup>lt;sup>60</sup> W.S. 30-5-404(b).

<sup>&</sup>lt;sup>61</sup> Id.

<sup>&</sup>lt;sup>62</sup> W.S. 30-5-404(c).

<sup>&</sup>lt;sup>63</sup> Id.

<sup>&</sup>lt;sup>64</sup> Id.

<sup>&</sup>lt;sup>65</sup> Id.

<sup>&</sup>lt;sup>66</sup> W.S. 30-5-404(d).

<sup>&</sup>lt;sup>67</sup> W.S. 30-5-404(e).

an agreement with the operator, or that the surface owner failed to give notice or sue for damages within the applicable time period. $^{68}$ 

#### **Produced Water**

Produced water (or, as used in Wyoming statutes, by-product water)<sup>69</sup> is water that is extracted from the subsurface along with oil and gas and may include water from the reservoir, water that has been injected into the formation, and any chemicals added during the production and treatment process.<sup>70</sup> Few statutes address produced water. Generally, the Commission has the authority to require the drilling and plugging of wells in order to prevent the intrusion of water into the oil-and-gas stratum and to prevent the pollution of fresh water supplies by oil, gas, or salt water.<sup>71</sup> The Commission can also regulate the location, construction, operation, and reclamation of produced-water retention pits used solely for storing, treating, and disposing of produced waters and other wastes; the Commission has rules addressing these issues.<sup>72</sup>

Wyoming statute defines "by-product water" as "water which has not been put to prior beneficial use, and which is a by-product of some nonwater-related economic activity and has been developed only as a result of such activity. By-product water includes, but is not limited to, water resulting from the operation of oil well separator systems or mining activities such as dewatering of mines."<sup>73</sup>

Wyoming law allows for by-product water to be appropriated for beneficial use.<sup>74</sup> To do so, a person seeking to appropriate by-product water must apply with the state engineer using the same process that is used for groundwater.<sup>75</sup> A person can apply to use by-product water only if (1) the by-product water is intercepted while it is readily identifiable and before it has commingled with the waters of any live stream, lake, reservoir, groundwater aquifer, or other surface water course; and (2) the developer of the water is the applicant, or an agreement is filed with the state engineer where the developer gives the applicant permission to use the by-product water as proposed in the

<sup>&</sup>lt;sup>68</sup> W.S. 30-5-404(f).

<sup>&</sup>lt;sup>69</sup> "Produced water" and "by-product water" are used interchangeably here.

<sup>&</sup>lt;sup>70</sup> See Soc'y of Petro. Engs., <u>Challenges in Reusing Produced Water</u>, <u>available at https://www.spe.org/industry/challenges-in-reusing-produced-water.php.</u>

<sup>&</sup>lt;sup>71</sup> W.S. 30-5-104(d)(i)(C).

<sup>&</sup>lt;sup>72</sup> W.S. 30-5-104(d)(vi); <u>see</u> WOGCC Rules, Ch. 4.

<sup>&</sup>lt;sup>73</sup> W.S. 41-3-903.

<sup>&</sup>lt;sup>74</sup> <u>See</u> W.S. 41-3-904(a).

<sup>&</sup>lt;sup>75</sup> <u>Id.</u>

application.<sup>76</sup> If both conditions are not met, then by-product water is governed by the laws pertaining to surface water and is considered part of the surface supply, subject to use by existing priority rights.<sup>77</sup>

The Department of Environmental Quality also plays a role in the discharge and use of produced water. Any person seeking to discharge produced water from an oil-and-gas production facility into surface waters must not only obtain a permit<sup>78</sup> but also comply with specific requirements where the produced water must, among other things:

- Have sufficient quality to be used for wildlife or livestock watering or other agricultural uses and is actually put to those uses during discharge;
- Not contain toxic materials in concentrations or combinations that are toxic to human, animal, or aquatic life;
- Not damage land or vegetation;
- Be discharged from a clearly identified facility;
- Minimize erosion of the drainage at the point of discharge;
- Not contain substances that will settle to form sludge or other deposits that adversely affect water supplies or use or that degrade the aesthetics or habitat;
- Satisfy additional requirements when used for stock and wildlife consumption.<sup>79</sup>

Produced-water discharges must comply with federal requirements, including securing a permit from the Environmental Protection Agency (EPA) and satisfying guidelines for discharge, including one prohibiting discharge into publicly owned treatment works. Discharges also must comply with the National Pollutant Discharge Elimination System (NPDES); generally, federal regulations prohibit discharge of pollutants of any kind from produced water into surface waters (zero discharge). But discharges for beneficial use west of the 98th meridian (including in Wyoming) are not subject to the zero-discharge requirement. Instead, separate effluent limitations are in place for these produced water discharges, including one requiring the produced water to be of sufficient quality for wildlife or livestock watering or other agricultural uses (similar to the state rule described above). See the Environment of the Environment of

<sup>78</sup> <u>See</u> W.S. 35-11-301(a); 35-11-302(a).

<sup>&</sup>lt;sup>76</sup> W.S. 41-3-904(a)(i) and (ii).

<sup>&</sup>lt;sup>77</sup> W.S. 41-3-904(b).

<sup>&</sup>lt;sup>79</sup> Dep't of Envtl. Quality, Water Quality Rules, Ch. II, App. H.

<sup>80 &</sup>lt;u>See</u> 40 C.F.R. §§ 435.31 through 435.34.

<sup>&</sup>lt;sup>81</sup> <u>See</u> 40 C.F.R. § 435.50.

<sup>82 &</sup>lt;u>See</u> 40 C.F.R. § 435.52.

The EPA is currently undertaking a study to engage with states, tribes, and stakeholders to consider available approaches to manage produced water from oil-and-gas operations. The EPA is considering, among other things, (1) how federal approaches to produced-water management can better interact with state and tribal regulations, requirements, and needs; and (2) whether federal regulations should be amended to allow for broader discharge of treated produced water. <sup>83</sup> As part of this study, the EPA and the state of New Mexico entered into a memorandum of understanding in July 2018, where the relevant New Mexico state agency and the EPA formed a workgroup to address policy issues and develop a white paper related to produced water opportunities. The white paper will:

- Synthesize the state and federal regulatory and permitting frameworks related to produced water;
- Identify data and policy gaps in the use of produced water;
- Identify possible uses of produced water;
- Identify any process or other improvements with respect to those uses.<sup>84</sup>

The workgroup's draft white paper was completed in November 2018 and discusses gaps in state and federal regulations and potential uses of produced water, including agricultural, industrial, and municipal uses.<sup>85</sup>

#### **Conclusion**

This summary is meant to provide a broad and basic overview of oil-and-gas law in Wyoming, with further discussion of selected subtopics. If you have any questions, please let me know.

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<sup>83 &</sup>lt;u>See</u> Envtl. Protection Agency, <u>Study of Oil and Gas Extraction Wastewater Management</u>, <u>available at https://www.epa.gov/eg/study-oil-and-gas-extraction-wastewater-management</u>.

Memorandum of Understanding between the EPA and N.M., July 16, 2018, available at <a href="https://www.epa.gov/sites/production/files/2018-07/documents/epa-nm-mou\_produced-water\_07-16-2018.pdf">https://www.epa.gov/sites/production/files/2018-07/documents/epa-nm-mou\_produced-water\_07-16-2018.pdf</a>.

<sup>85</sup> The draft white paper is available at https://www.epa.gov/sites/production/files/2018-11/documents/oil\_and\_natural\_gas\_produced\_water\_governance\_in\_the\_state\_of\_n ew\_mexico\_draft\_white\_paper\_508.pdf.